

# PATENT ABSTRACTS OF JAPAN

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## (54) SLIDING MEMBER AND ITS PRODUCTION

### (57)Abstract:

PROBLEM TO BE SOLVED: To provide a sliding member having a low friction coefficient and excellent in wear resistance by making it into the one whose solid lubricity effectively functions even in lubricating oil.

SOLUTION: As to a hard carbon film sliding member 1 the surface of a base material 2 is coated with a hard carbon film 3 by vapor phase synthesis, which is thereafter subjected to plasma treatment or ion implantation, by which the surface of the hard carbon film 3 is incorporated with nitrogen and/or oxygen and/or is provided with the hard carbon film 3 in which the content of hydrogen in the surface is controlled to  $\leq 10$  at%.

